

Changes to the Specification

Please amend the specification as shown below.

Please change the TITLE on page 1, lines 1-2, to read as follows:

DEMODULATION OF MULTI-USER, MULTIPLE PROTOCOL DATA IN
A RECONFIGURABLE DATAPATH.

In the specification on page 4, lines 9-13, under BRIEF DESCRIPTION
OF THE DRAWINGS, please make the following changes:

Figure 2 is a block-diagram illustrating a second system for
demodulating data in parallel for multiple users; and

Figure 3 is a flow chart illustrating the method of demodulating data in
accordance with the present invention; and

~~Figure 4 is a code listing for the method of the present invention.~~

On page 6 of the specification, in the paragraph starting on line 9, please make the following changes:

Referring to Figure 3, a method of demodulating data with the demodulation system 10 is illustrated. The method begins with step 100 wherein the data is buffered. Specifically, the data (i.e., antenna data) from the receiver 12 is fed into the input buffer 14. As previously mentioned, the data will contain signals from multiple users transmitted in multiple protocols (standards). The next step is to ~~choose~~ select the protocol to be demodulated as seen in step 102 of Figure 3. The controller 18 may determine the protocol to be demodulated based upon the type of data encoding. Once the protocol is ~~chosen~~ selected, the datapath 16 will be configured, as seen in step 104, to demodulate. ~~The datapath 16 will be configured to demodulate the data~~ according to the algorithm for the desired selected protocol. Accordingly, controller 18 will configure the datapath 16 to demodulate and decode the data according to the selected protocol.

On page 7, starting on line 7, please change the paragraph as shown:

Once the data for a first user or first set of users has been demodulated, the data for a second and subsequent users can also be demodulated. Specifically, as seen in step 112 of Figure 3, after the data for a particular user has been demodulated and sent to the output buffer 20, the next user is determined by returning to step 106 via pathway "A" 114. The data for the next user is determined in step 106 and read from input buffer 14 in step 108. The data is demodulated with the datapath 16 in step 110 and sent to the output buffer 20 in step 112. The process continues until all of the signals for all of the users have been demodulated by the datapath 16 for the protocol ~~chosen~~ selected in step 102.

On page 7, starting on line 16, please change the paragraph as shown:

After the signal for each user has been demodulated by the datapath 16 for the selected protocol, the next protocol is ~~chosen~~ selected. Specifically, as seen in Figure 3, after all the signals for each user ~~has~~ have been demodulated and outputted for the selected protocol ~~chosen~~, the method continues along pathway "B" 116 by ~~choosing~~ selecting the next protocol in step 102. Once the next protocol has been selected ~~chosen~~, the datapath 16 will be configured in step 104 for that protocol. The signals for each of the users will then be demodulated according to steps 106 to 112, as previously mentioned.

On page 8, starting on line 1, please change the paragraph as shown:

After the signals for each of the users have been demodulated for each of the protocols, the method of demodulating data according to the present invention proceeds by buffering new data. Specifically, antenna data for users from receiver 12 will be buffered in step 100 by proceeding along pathway “C” 118. New antenna data for the users will be demodulated for multiple protocols using the steps previously described. In this respect, the method for demodulating data will proceed through steps 100 to 112 for the signal of each and every user, and each and every protocol, as previously described. ~~Figure 4 shows a code listing written in C for the method shown in Figure 3.~~

On page 9, starting on line 11, please change the paragraph as shown:

Specifically, during ~~demolition~~ demodulation of data, a prescribed number of users will be allocated to each of the demodulation systems 50(a...50(n) in order to facilitate demodulation of the data. Each of the demodulation systems 50(a...50(n) will demodulate the data for the assigned users according to the method described above for the single demodulation system 10. Accordingly, it is possible for the demodulation systems 50(a...50(n) to operate in parallel in order to demodulate the signal of multiple users.